Distributed by:

JAMECO® ELECTRONICS

www.Jameco.com ✦ 1-800-831-4242

The content and copyrights of the attached material are the property of its owner.

HM6264 Series

Maintenance Only
(Substitute HM6264A)

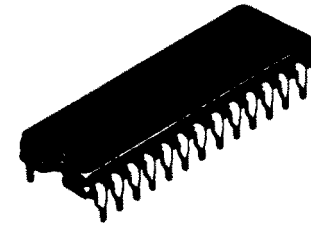
8192-word x 8-bit High Speed CMOS Static RAM

Jameco Part Number 42892

■ FEATURES

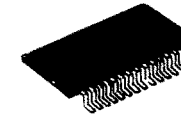
- Fast access Time — 100ns/120ns/150ns (max.)
- Low Power Standby — Standby: 0.1mW (typ.) 10μW (typ.) L-/LL-version
- Low Power Operation — Operating: 200mW/MHz (typ.)
- Single +5V Supply
- Completely Static Memory. . . . . No clock or Timing Strobe Required
- Equal Access and Cycle Time
- Common Data Input and Output, Three State Output
- Directly TTL Compatible: All Input and Output
- Standard 28pin Package Configuration
- Pin Out Compatible with 64K EPROM HN482764
- Capability of Battery Back Up Operation (L-/LL-version)

HM6264P Series



(DP-28)

HM6264FP Series



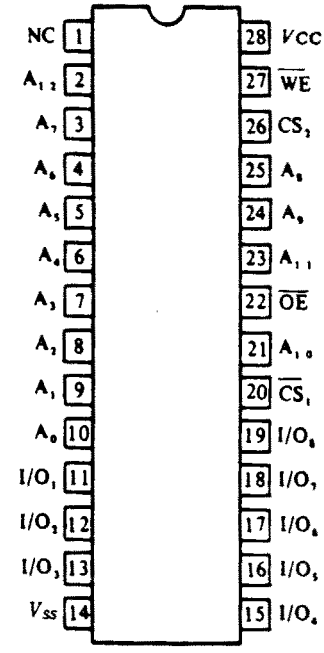
(FP-28D/DA)

■ ORDERING INFORMATION

Type No.	Access Time	Package
HM6264P-10	100ns	600 mil 28 pin Plastic DIP
HM6264P-12	120ns	
HM6264P-15	150ns	
HM6264LP-10	100ns	
HM6264LP-12	120ns	
HM6264LP-15	150ns	
HM6264LP-10L	100ns	
HM6264LP-12L	120ns	
HM6264LP-15L	150ns	
HM6264FP-10	100ns	28 pin Plastic SOP (Note)
HM6264FP-12	120ns	
HM6264FP-15	150ns	
HM6264LFP-10	100ns	
HM6264LFP-12	120ns	
HM6264LFP-15	150ns	
HM6264LFP-10L	100ns	
HM6264LFP-12L	120ns	
HM6264LFP-15L	150ns	

Note) A character T is added to the end of type No. for SOP of 3.00 mm (max.) thickness.

■ PIN ARRANGEMENT



(Top View)

■ ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating	Unit
Terminal Voltage *1	V_T	−0.5*2 to +7.0	V
Power Dissipation	P_T	1.0	W
Operating Temperature	T_{opr}	0 to +70	°C
Storage Temperature	T_{stg}	−55 to +125	°C
Storage Temperature Under Bias	T_{bias}	−10 to +85	°C

Notes) *1. With respect to V_{SS}
*2. −3.0V for pulse width ≦ 50ns

Note) This device is not available for new application.

■ CAPACITANCE (f = 1MHz, T_a = 25°C)

Item	Symbol	Test Condition	typ	max	Unit
Input Capacitance	C_{in}	V_{in} = 0V	–	6	pF
Input/Output Capacitance	$C_{I/O}$	$V_{I/O}$ = 0V	–	8	pF

Note) This parameter is sampled and not 100% tested.

■ AC CHARACTERISTICS (V_{CC} = 5V±10%, Ta = 0 to +70°C)

• AC TEST CONDITIONS

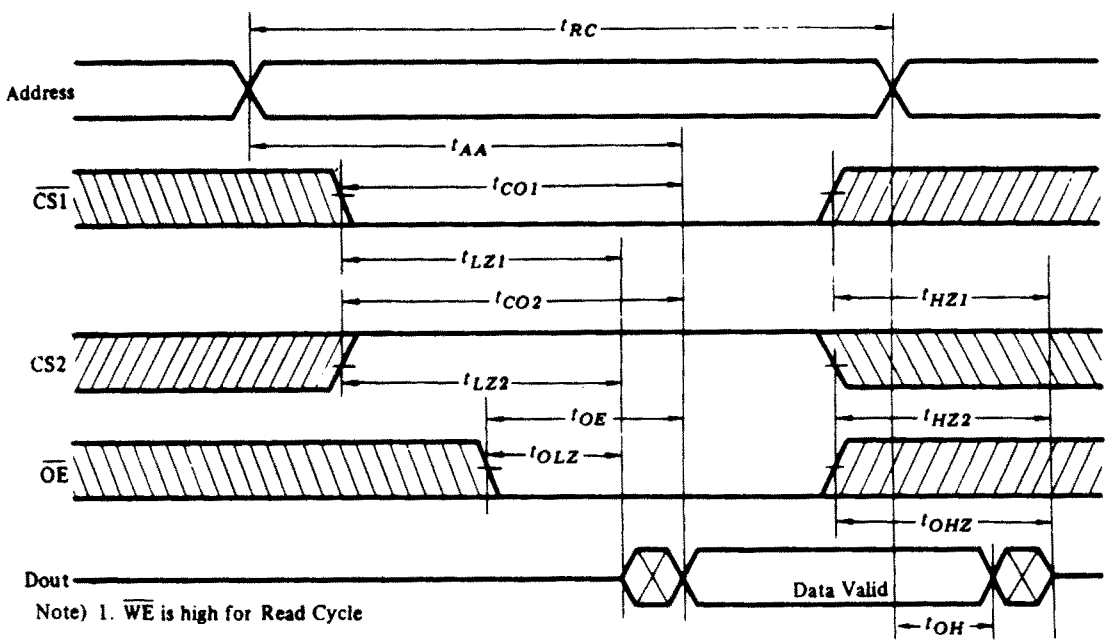
Input Pulse Levels: 0.8 to 2.4V
Input Rise and Fall Times: 10ns
Input and Output Timing Reference Level: 1.5V
Output Load: 1TTL Gate and C_L (100pF) (including scope and jig)

• READ CYCLE

Item		Symbol	HM6264-10		HM6264-12		HM6264-15		Unit
			min	max	min	max	min	max	
Read Cycle Time		t_{RC}	100	–	120	–	150	–	ns
Address Access Time		t_{AA}	–	100	–	120	–	150	ns
Chip Selection to Output	$\overline{CS1}$	t_{CO1}	–	100	–	120	–	150	ns
	CS2	t_{CO2}	–	100	–	120	–	150	ns
Output Enable to Output Valid		t_{OE}	–	50	–	60	–	70	ns
Chip Selection to Output in Low Z	$\overline{CS1}$	t_{LZ1}	10	–	10	–	15	–	ns
	CS2	t_{LZ2}	10	–	10	–	15	–	ns
Output Enable to Output in Low Z		t_{OLZ}	5	–	5	–	5	–	ns
Chip Deselection to Output in High Z	$\overline{CS1}$	t_{HZ1}	0	35	0	40	0	50	ns
	CS2	t_{HZ2}	0	35	0	40	0	50	ns
Output Disable to Output in High Z		t_{OHZ}	0	35	0	40	0	50	ns
Output Hold from Address Change		t_{OH}	10	–	10	–	15	–	ns

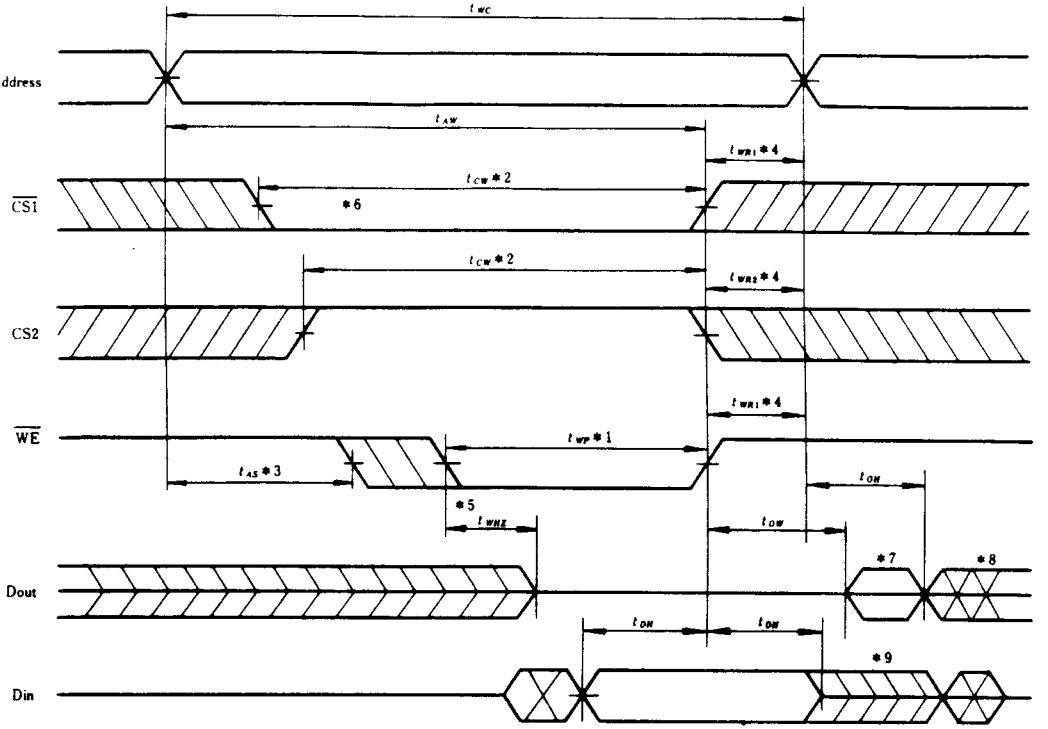
Notes) 1. t_{HZ} and t_{OHZ} are defined as the time at which the outputs achieve the open circuit condition and are not referred to output voltage levels.
2. At any given temperature and voltage condition, t_{HZ} max is less than t_{LZ} min both for a given device and from device to device.

• READ CYCLE



Note) 1. $\overline{WE}$ is high for Read Cycle

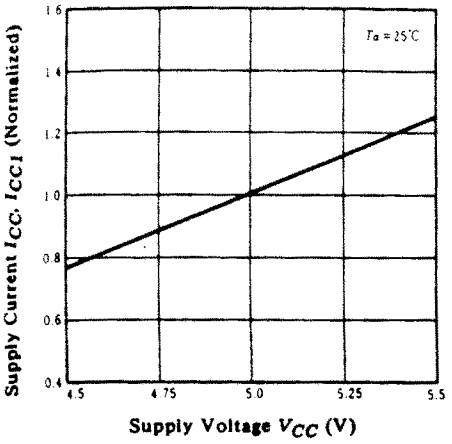
• WRITE CYCLE (2) ($\overline{OE}$ Low Fix)



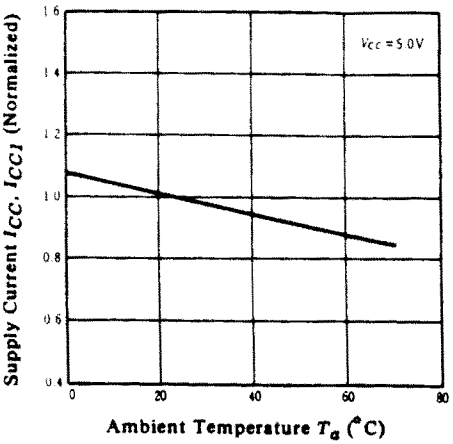
Notes) 1. A write occurs during the overlap of a low $\overline{CS1}$, a high CS2 and a low $\overline{WE}$. A write begins at the latest transition among $\overline{CS1}$ going low, CS2 going high and $\overline{WE}$ going low. A write ends at the earliest transition among $\overline{CS1}$ going high, CS2 going low and $\overline{WE}$ going high. t_{WP} is measured from the beginninng of write to the end of write.

2. t_{CW} is measured from the later of $\overline{CS1}$ going low or CS2 going high to the end of write.
3. t_{AS} is measured from the address valid to the beginning of write.
4. t_{WR} is measured from the end of write to the address change.
   t_{WR1} applies in case a write ends at $\overline{CS1}$ or $\overline{WE}$ going high.
   t_{WR2} applies in case a write ends at CS2 going low.
5. During this period, I/O pins are in the output state, therefore the input signals of opposite phase to the outputs must not be applied.
6. If $\overline{CS1}$ goes low simultaneously with $\overline{WE}$ going low or after $\overline{WE}$ going low, the outputs remain in high impedance state.
7. Dout is the same phase of the latest written data in this write cycle.
8. Dout is the read data of next address.
9. If $\overline{CS1}$ is low and CS2 is high during this period, I/O pins are in the output state. Therefore, the input signals of opposite phase to the outputs must not be applied to them.

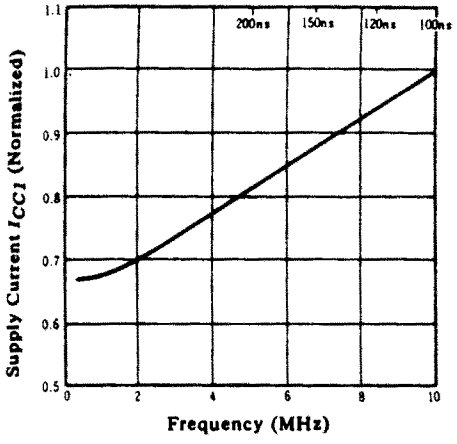
SUPPLY CURRENT vs. SUPPLY VOLTAGE



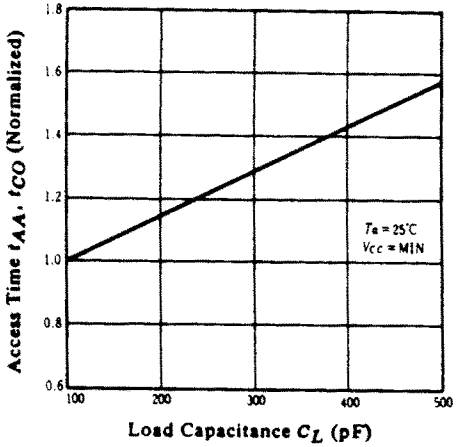
SUPPLY CURRENT vs. AMBIENT TEMPERATURE



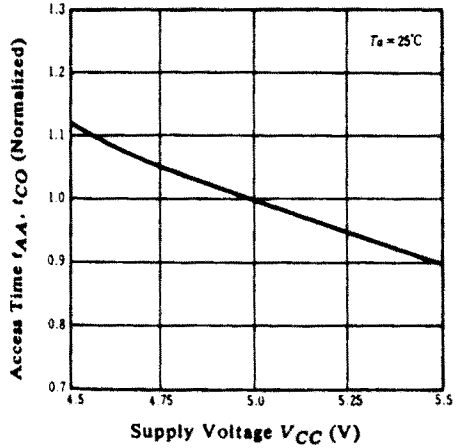
SUPPLY CURRENT vs. FREQUENCY



ACCESS TIME vs. LOAD CAPACITANCE



ACCESS TIME vs. SUPPLY VOLTAGE



ACCESS TIME vs. AMBIENT TEMPERATURE